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10/525,160	09/26/2005	Ralf Ulrich	P0-7856/LeA 36,229	5659

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Lanxess Corporation
Law & Intellectual Property Department
111 Ride Park West Drive
Pittsburgh, PA 15275-1112

EXAMINER

USELDING, JOHN E

ART UNIT	PAPER NUMBER
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1796

MAIL DATE	DELIVERY MODE
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08/28/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/525,160	Applicant(s) ULRICH ET AL.	
	Examiner /JOHN USELDING/	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 5-14 and 17-21 is/are pending in the application.
- 4a) Of the above claim(s) 17-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claims 17-21 were withdrawn in the Final office action of 1/15/2009 because the newly added claims were directed to a different invention. Election was by original presentation.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. A proportion by weight of a component of claim 1 is claimed in claims 5 and 6. There are three different components with percents by weight in claim 1 and it is indefinite what component these claims are referring to. For the purpose of applying prior art the claims are being interpreted that the percents by weight can be referring to any of the components of claim 1.

Claim 11 recites the limitation "nanoscale filler and elastomers" in claim 1. There is insufficient antecedent basis for this limitation in the claim.

Claims 5 and 6 recite the limitation "the proportion by weight" in claim 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5, 6, 11, and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Coran et al. (4,348,502).

Regarding claims 1-3: Coran et al. teach compositions comprising nylon and ethylene vinyl acetate polymer (hereinafter EVA) in the claimed proportions (Table 1, Examples 1-5). The EVA is about 50% vinyl acetate (column 6, lines 35-37).

Regarding claim 5: The proportion by weight can be considered in terms of the amount of polyamide or the amount of vinyl acetate to meet the claim limitation.

Regarding claim 6: The proportion by weight is being considered in terms of the amount of polyamide and is met by examples 1 and 2.

Regarding claim 11: The claim states that the nanoscale fillers and elastomers "may" be put in as well but are not necessary. May is a permissive terms which renders the following clause optional. Coran et al. teach melt molding their composition (column 2, lines 38-42; column 6, lines 17-34).

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Regarding claim 12: Coran et al. teach that the EVA is present in the form of small dispersed particles (column 2, lines 3-25). The particles are considered pellet mixture.

Regarding claim 14: Coran et al. teach a molded sheet (column 6, lines 29-34), which is considered a single layer film.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 7, 9, 10, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coran et al. (4,348,502).

Regarding claim 1: Coran et al. teach a composition comprising nylon and EVA where the nylon is 15 to 75% and the EVA is 85 to 25% of the mixture (column 1, lines 23-29; claim 1). Coran et al. teach that compositions comprising 50% or more of nylon in the mixture of nylon and EVA exhibit improved impact resistance (column 1, lines 32-36). Even the elasoplastic compositions overlap the claimed range at 50% by weight (column 1, lines 42-50 and claims 8-9). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have optimized the amount of the polyamide and EVA so that the polyamide is greater than 50% to provide a thermoplastic composition with improved impact resistance. It also would have been

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obvious to make an elastoplastic composition with 50% polyamide and 50% EVA (Example 5). Since the ranges are overlapping. The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made, since it has been held that choosing the overlapping portion, of the range taught in the prior art and the range claimed by the applicant, has been held to be a *prima facie* case of obviousness, see *In re Malagari*, 182 USPQ 549. Coran et al. teach that the EVA is 40 to 70% vinyl acetate (column 3, lines 30-35) and in the examples it is about 50% (column 6, lines 35-37).

Regarding claims 7 and 9: Coran et al. teach adding metal oxides such as titanium dioxide and zinc oxide, which are nanoscale fillers (column 4, lines 54-60).

Regarding claim 11: Coran et al. teach melt compounding the constituents (column 2, lines 38-42; column 6, lines 17-34). The two components must be either added together or separately because there is no other alternative. Therefore, the method of Coran et al. meets the claim limitations.

Regarding claim 13: Coran et al. teach methods of making moldings comprising the step of extruding (column 5, lines 38-44)

Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coran et al. (4,348,502) as applied to claim 1 above further in view of Abe et al. (5,451,642).

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Coran et al. teach that their composition can include conventional additives that are used in EVA rubber alone, polyamide alone, and blends thereof (column 4, lines 54-60). In their list is included clay (column 4, lines 54-60).

Coran et al. fail to teach that their clay is a phyllosilicate and the amount used.

Since Coran et al. is silent as to what type of clay is used the skilled artisan would look to the prior art for a suitable clay.

Abe et al. teach a composition comprising polyamide (column 1, lines 13-23), EVA rubber (column 21, lines 1-8) and talc (examples). Talc is a nanoscale clay that also is a phyllosilicate and a metal oxide hydrate of the formula $\text{Mg}_3\text{Si}_4\text{O}_{10}(\text{OH})_2$. Abe et al. teach using 1 to 200 parts by weight of talc as a reinforcing filler (column 28 lines 12-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the talc of Abe et al. in the amounts taught by Abe et al. as the conventional additive or clay material in Coran et al. to provide reinforcement to the composition.

The amount of talc taught overlaps the claimed amount. The subject matter as a whole would have been obvious to one having ordinary skill in the art at the time the invention was made, since it has been held that choosing the overlapping portion, of the range taught in the prior art and the range claimed by the applicant, has been held to be a *prima facie* case of obviousness, see *In re Malagari*, 182 USPQ 549. It would have been obvious to optimize the amount of reinforcement filler depending on the desired impact resistance. It is a result effective variable.

Response to Arguments

Applicant's arguments with respect to claims 1-3 and 5-14 have been considered but are moot in view of the new ground(s) of rejection.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /JOHN USELDING/ whose telephone number is (571)270-5463. The examiner can normally be reached on Monday-Thursday 6:00am-4:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/JOHN USELDING/
Examiner
Art Unit 1796

/Marc S. Zimmer/
Primary Examiner, Art Unit 1796